UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Rev. 1450

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 10/01/2010

NOTICE OF ALLOWANCE AND FEE(S) DUE

27623 7590 10/01/2010

OHLANDT, GREELEY, RUGGIERO & PERLE, LLP ONE LANDMARK SQUARE, 10TH FLOOR

STAMFORD, CT 06901

EXAMINER
ARENA, ANDREW OWENS
ART UNIT PAPER NUMBER
2811

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511.566	04/13/2005	Jurgen Leib	2133,063USU	4191

TITLE OF INVENTION: METHOD FOR FORMING HOUSINGS FOR ELECTRONIC COMPONENTS AND ELECTRONIC COMPONENTS THAT ARE HERMETICALLY ENCAPSULATED THEREBY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/03/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correcte maintenance fee notifical	correspondence includired below or directed oth	of transmitting the 1330 ig the Patent, advance of herwise in Block 1, by (a	rders and notification of a a) specifying a new corre	naintenance fees wi spondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address as trate "FEE ADDRESS" for
	ENCE ADDRESS (Note: Use Bi	ock 1 for any change of address)	Not Fee pap haw	e: A certificate of r (s) Transmittal. This ers. Each additional e its own certificate	nailing certif paper of mai	can only be used for icate cannot be used for such as an assignme ling or transmission.	or domestic mailings of the for any other accompanying nt or formal drawing, must
	RK SQUARE, 10T	IERO & PERLE, I	LLP The	Cert	ificate	of Mailing or Trans	mission g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below.
			_				(Depositor's name)
			⊢				(Signature)
			L				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/511,566 TITLE OF INVENTION ARE HERMETICALLY			Jurgen Leib R ELECTRONIC COMP	ONENTS AND EL		2133.063USU ONIC COMPONEN	4191 FS THAT
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	01/03/2011
EXAM	INER	ART UNIT	CLASS-SUBCLASS]			
ARENA, AND	REW OWENS	2811	438-778000	•			
"Fee Address" ind. PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 12 or more recent) attach ND RESIDENCE DAT/ iess an assignee is ident h in 37 CFR 3.II. Comp	nge of Correspondence "Indication form ted. Use of a Customer A TO BE PRINTED ON 2	2. For printing on the p (I) the names of up to or agents OR, alternati (2) the name of a single registered attorney or 2 registered patent atto listed, no name will be THE PATENT (print or tyled data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY	3 registered patent vely, e firm (having as a agent) and the name emeys or agents. If n printed.	memb s of up so nam	er a 2	ocument has been filed for
Please check the appropr	iate assignee category or	categories (will not be pr	inted on the patent):	Individual 🖵 Co	rporati	on or other private gro	oup entity 🚨 Government
4a. The following fee(s): Issue Fee Publication Fee (N	o small entity discount p		o. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038	is atta	ched.	shown above) ficiency, or credit any n extra copy of this form).
	s SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no lon				
NOTE: The Issue Fee and interest as shown by the i	d Publication Fee (if req records of the United Sta	uired) will not be accepted tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regis	tered a	ittorney or agent; or th	ne assignee or other party in
Authorized Signature				Date			
Typed or printed name				Registration No	D		
This collection of inform an application. Confident submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 d application form to the ons for reducing this but firginia 22313-1450. DC 13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR (on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS To	retain a benefit by the timated to take 12 nr ridual case. Any cor er, U.S. Patent and 1 D THIS ADDRESS.	ne publ ninutes nment Fraden SENI	ic which is to file (and to complete, includir s on the amount of tin ark Office, U.S. Dep O TO: Commissioner	by the USPTO to process) gg gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 10/01/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/511,566	04/13/2005	Jurgen Leib	2133.063USU	4191	
27623 75	90 10/01/2010	EXAMINER			
OHLANDT, GR	EELEY, RUGGIERO	ARENA, ANDREW OWENS			
	K SQUARE, 10TH FL	ART UNIT	PAPER NUMBER		
STAMFORD, CT	06901	2011			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/511.566 LEIB ET AL. Notice of Allowability Examiner Art Unit Andrew O Arena 2811 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to the reply filed 3/29/2010. The allowed claim(s) is/are 1, 3 – 10, 12 – 18, 19, 20, 34, 39, 41 and 45 – 50. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) 🔯 All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. X Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. T Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other . /Andrew O. Arena/

Examiner, Art Unit 2811

Application/Control Number: 10/511,566

Art Unit: 2811

ALLOWANCE

Response to Arguments

The arguments filed 03/29/2010 were fully considered but most are not convincing. However, the argument regarding newly added limitations is convincing.

The arguments that "Baglin and Sioshansi are non-analogous" (pg 8 ¶4-5 – pg 9 ¶1) are not convincing. Baglin is analogous in applying insulating glass layers (title) to electronic modules (col 1 ln 41-45) such as those of Camlibel. Sioshansi is analogous to Baglin in disclosing ion beam densification of deposited coatings (col 1 ln 7-11).

The arguments regarding "mole percent and not weight percent as claimed" (pg 9 ¶6 – pg 11 ¶1) do not seem to overcome the previously applied obviousness rejections since this argument is against Camlibel individually. The rejection does not rely on exact percentages in any one reference, rather, the rejection was based on a recognition in the art that altering the glass composition – and specifically percent composition of certain oxides, including most of those claimed – affects the resultant coefficient of expansion, dielectric properties, as well as other characteristics.

The arguments that Camlibel teaches against the combination with Harmon (pg 11 ¶2-3) are not particularly convincing, the purity required by Camlibel certainly warrants consideration, but the overall teachings of the cited art seem to suggest that other compositions would be suitable, including the composition of Harmon.

The arguments that "there is no hint or suggest that the glass of Harmon is suitable for vapor deposition" (pg 11 ¶4) are not particularly convincing. Both Camlibel and Sioshansi disclose vapor glass deposition. Since vapor deposition of various glass

Application/Control Number: 10/511,566

Art Unit: 2811

compositions is known in the art, there is no specific reason on record or apparent for any reason, that the specific composition of Harmon is an exception.

The arguments that "the cited art fails to disclose or suggest...the glass layer composition required by claims 49 and 50" (pg 13 ¶6) has been fully considered and after careful consideration, is convincing in that it seems none of the prior art fairly suggest the claimed LiO2 composition. The specifically offered composition arguments for claims 1 and 45 (pg 9 ¶3; pg 12 ¶1) emphasized the Boron composition, which was not convincing; however, these claims also do require the Li2O composition.

In summary, it seems that the previously applied rejections fairly established the obviousness of altering compositions of known components to achieve the desired glass properties. However, the claims as now amended call for at least one component of the composition that has not been disclosed by any of the prior art.

Allowed Claims

Claims 1, 3 – 10, 12 – 18, 19, 20, 34, 39, 41 and 45 – 50 are allowed.

Reasons for Allowance

Allowance has been indicated since the prior art references of record, alone or in combination, do not teach or fairly suggest at least

"the glass layer has a composition...comprising...Li₂O" as recited in all independent claims (1, 45, 49 and 50) and therefore required by all pending claims.

Application/Control Number: 10/511,566
Art Unit: 2811

Closest Prior Art

Camlibel discloses the glass layer has a composition, in percent by weight, comprising a range of suitable SiO_2 and B_2O_3 fractions (Fig 1).

Harmon discloses "borosilicate glass comprised of about 65% silicon dioxide, 3.5% aluminum trioxide, 3.7% potassium oxide, 4.5% sodium oxide, 21.0% boron trioxide and minor percentages of various impurities, and commonly known as Corning Glass 7052" (col 3 In 1-8) but does not disclose or fairly suggest any content of Li₂O.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew O. Arena whose telephone number is (571)272-5976. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne A. Gurley can be reached on 571-272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2811

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew O. Arena/ Examiner, Art Unit 2811 26 September 2010